COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY-AMERICAN WATER COMPANY TO INCREASE ITS RATES	) CASE NO.) 95-554

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O R D E R

On January 30, 1996, Kentucky-American Water Company ("Kentucky-American") filed a rate application with the Commission using a forecasted test period, pursuant to 807 KAR 5:001, Section 10(1)(b). Kentucky-American proposed an increase to its water rates effective February 29, 1996, to generate additional annual revenues of $3,425,992, an increase of approximately 10.35 percent over existing revenues.

To determine the reasonableness of the request, the Commission suspended the proposed rates for six months from their effective date pursuant to KRS 278.190(2). The Attorney General's office, Utility and Rate Intervention Division ("AG"), the Lexington-Fayette Urban County Government ("LFUCG"), and Chetan Talwalkar ("Talwalkar") were granted full intervenor status and Robert Moody was granted limited intervenor status. A procedural schedule was established, the parties engaged in extensive discovery, intervenors filed testimony, and briefs were filed. A public hearing was held on June 26 and 27, 1996, to receive evidence relating to Kentucky-American's rate application.

This Order addresses the Commission's findings and determinations on the issues presented and disclosed upon the investigation of Kentucky-American's revenue requirement. The Commission has approved rates to produce an increase in annual operating revenue of $1,514,964.

ANALYSIS AND DETERMINATION

Forecasted Test Period

As authorized by KRS 278.192(1), the forecasted test period is the 12 months ending August 31, 1997. The base period upon which the reasonableness of the forecasted period is to be determined is the 12 months ended April 30, 1996.

Valuation Method

Kentucky-American has proposed a forecasted net investment rate base of $120,147,363.[1] This forecasted rate base is accepted with the following exceptions:

Utility Plant In Service ("Utility Plant"). Kentucky-American adjusted its actual October 31, 1995 level of utility plant of $160,666,019[2] by the forecasted monthly utility plant additions and retirements for the period of November 1, 1995 through August 31, 1997. A 13-month average of the forecasted utility plant balances for the period of August 1996 through August 1997 was used to arrive at Kentucky-American's forecasted utility plant of $181,744,017.[3]

Kentucky-American's construction budget is segregated into two categories: (1) investment projects, normal recurring plant investment; and (2) special budget projects, non-recurring plant investment.[4] Between 1986 and 1995, the ratio of Kentucky-American's actual to budgeted construction spending, labeled "the slippage factor," was

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1 Rate Base Summary as of August 31,1977, Schedule B-1, page 2 of 2.

2 Workpaper W/P-1-1, page 3.

3 Direct Testimony of Douglas G. Fuller, page 2.

4 Id.

74.03 percent for special budget projects and 97.12 percent for investment projects.[5] The slippage factors are a historical indicator of Kentucky-American's inability to accurately predict the cost of its utility plant additions and the date that plant will be placed into service.

In Case No. 92-452,[6] the Commission determined that because budgeting is an inexact science, the historical relationship between budgets and actual results should be reviewed to determine which construction projects will be in service or under construction in the forecasted period. Based on the historical relationship demonstrated by the slippage factor, the Commission concluded Kentucky-American's "very best estimate(s)" of construction spending was inaccurate and showed a pervasive pattern of over-budgeting for construction. To eliminate Kentucky-American's historical overestimation, the Commission reduced the forecasted recurring and specific budget projects by their respective slippage factors.

According to the AG, an unreliable forecast results in an overstated rate base which permits a utility to earn a return on utility plant investment not yet placed in service. The AG points to the unreliability of Kentucky-American's construction budget in Case No. 92-452, and the fact that the methodology used to develop the construction budget in that proceeding has not been revised or changed. The AG maintains that Kentucky-American's failure to revise or change its budgeting methodology, coupled with

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[5] Kentucky-American Response to Item 19 of the Commission's March 13, 1996 Order.

[6] Case No. 92-452, Notice of the Adjustment of Rates of Kentucky-American Water Company, Order issued November 22, 1994.

the historical data, shows that its budgeting process remains unreliable. Therefore, because Kentucky-American has failed to supply a reliable basis for development of its rate base, the AG proposes that utility plant in service be reduced by the historical slippage factors.[7]

Kentucky-American contends that if its rates are to be based on an examination of a historical period, the exclusive emphasis should be placed on its most recent history as that is the best indicator of the future. Kentucky-American urges the Commission to consider the most recent period April 1994 to January 1996, where the slippage factors for investment projects and special budget projects were 103.64 percent and 93.91 percent, respectively. Kentucky-American argues that the use of 10 year average slippage factors to determine the level of construction expenditures to be recognized in rates would prevent it from earning its authorized return over the next 10 years even if it spent its total construction budget.[8]

The basis for Kentucky-American's argument is that the improvement in the slippage factors which occurred in the 20-month period April 1994 to January 1996 will continue into the future. However, Kentucky-American's assumption is not supported by an analysis of the 10 year historical data used to develop the slippage factor. In 1989, Kentucky-American's slippage factor for special budget projects was 131.88 percent, but in 1990 the factor for those projects fell to 59.05. The slippage factors for special budget projects for 1994 and 1995 were 78.26 percent and 85.4 percent, respectively.

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[7] Brief of the AG, pages 3-4.

[8] Brief of Kentucky-American, pages 23-24.

The 10 year slippage factor is an average of the highs and lows that have occurred over time and it produces a more reliable estimate of the construction projects Kentucky-American will have in service or under construction in the forecasted test period. In Case No. 92-452, the 10 year historical slippage factors were applied to Kentucky-American's forecasted construction budget. In that proceeding, Kentucky-American's forecasted rate base exceeded its actual results by $2,902,120, while the Commission's pro forma rate base including the slippage factor exceeded Kentucky-American's actual results by only $231,459.[9]

The evidence demonstrates that Kentucky-American's recent history of budget forecasting is not a precise indicator of its future construction expenditures. In addition, a review of the slippage factors for each of the past 10 years, as well as the averages for that period, indicate that Kentucky-American's construction budgets tend to vary from its actual expenditures. Therefore, the Commission agrees with the AG's proposal to reduce Kentucky-American's utility plant in service by the historical slippage factors.

Kentucky-American has proposed that if a slippage factor is adopted, the factor should be based on the average of each year's percentage of projects completed, not the average of actual funds spent to total funds budgeted. It claims that this proposal is more appropriate because: (1) it takes into consideration that each years budget is developed independently; and (2) it eliminates any distortion or bias resulting from annual changes in the level of construction dollars budgeted and spent.[10] Kentucky-

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9 Commission's March 13, 1996 Order, Item 1.

10 Id., Item 19.

American's methodology results in slippage factors for investment projects and special projects of 97.99 percent and 78.66 percent, respectively.[11] The Commission finds Kentucky-American's method to calculate slippage factors to be reasonable and accepts it for use in this case.

Kentucky-American also argued that any calculation of a slippage factor based on historical projects and expenditures must exclude the Jacks Creek Pipeline Project from the analysis. The two and one-half year delay in that project was, in Kentucky-American's opinion, an extraordinary event not likely to recur, so the financial impact of that delay should be excluded.[12]

The Commission is unable to agree with Kentucky-American's assessment of the Jacks Creek Pipeline Project as exhibiting construction delays not likely to recur in other projects. An example of such a recurrence involves Kentucky-American's proposed pipeline to the Louisville Water Company ("Ohio River supply line"). Due to opposition by intervenors and the need for more definitive analyses of the Kentucky River, Kentucky-American has experienced numerous delays in this project. Consequently, there is no justification to exclude the Jacks Creek Pipeline Project from the slippage factor calculation.

Reducing Kentucky-American's construction budget by the slippage factors applicable to investment projects and special budget projects yields a forecasted utility

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11 Brief of Kentucky-American, page 24.

12 Id.

plant of $180,121,211. This results in a reduction of $1,622,806 to Kentucky-American's utility plant balance.

Talwalkar recommended excluding from rate base the costs associated with 10 budget projects that he identified as being tentative in nature. He included in this category projects that lack final engineering design, or are, in his opinion, poorly defined, or uncertain of being completed during the forecast period. One of those projects, BP 92-12-Develop Ohio River Supply, has been excluded due to the findings in Case No. 92-452 that: 1) the project was estimated to cost $50 million, which represented a 50 percent increase in rate base; 2) there was a high degree of uncertainty and controversy surrounding the need for the project; 3) no Certificate of Public Convenience and Necessity had been issued; and 4) the actions to be taken by another state agency, the Kentucky River Authority, had the potential to obviate the need for the project.

None of the other 9 budget projects identified by Talwalkar exhibits the characteristics of BP 92-12. The 9 other projects have significantly lower budgets, have not been the subject of controversy or mired in uncertainty, and have not been identified as being dependent upon future actions of another government agency.

A rate case based on a forecasted test year is not a surrogate for the in-depth analysis required to support a finding of need for the issuance of a Certificate of Public Convenience and Necessity. Rather, a rate case application triggers an investigation of the utility's budgeting procedures to determine their accuracy and reliability. If a utility's budgeting procedures are found to be accurate and reliable, budget projects are properly includable in rate base absent specific facts to justify their exclusion. The mere lack of a final engineering design does not demonstrate that a budget project is unlikely to be completed as forecasted. Furthermore, the Commission's use of a slippage factor shields ratepayers from being charged for budget projects that may not be completed on schedule.

Accumulated Depreciation. Kentucky-American's forecast of accumulated depreciation was developed in a fashion similar to that used to forecast utility plant. The actual accumulated depreciation balance on October 31, 1996 was adjusted by the monthly depreciation expense, forecasted retirements, and projected cost of removal net of salvage value. A 13-month average of the forecasted accumulated depreciation balances for the period of August 1996 through August 1997 was used to arrive at Kentucky-American's forecasted accumulated depreciation of $29,450,142.[13]

Given that accumulated depreciation depends on the level of utility plant, a reduction to utility plant has a correlating effect on the balance of accumulated depreciation. To be consistent, forecasted accumulated depreciation has been reduced by $23,942, to reflect the slippage factor adjustment made to utility plant.

Construction Work In Progress ("CWIP"). A 13-month average of the forecasted CWIP balances for the period of August 1996 through August 1997 was used to arrive at Kentucky-American's forecasted CWIP of $4,564,329.[14] This amount includes

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13 Direct Testimony of Douglas G. Fuller, page 3.

14 Id., page 4.

approximately $1,164,782[15] in design and development costs associated with the Ohio River supply line.

In Case No. 92-452, the Ohio River supply line was removed from rate base because of the nature of its costs, the requirements of the Uniform System of Accounts for Class A and B Water Utilities ("USoA"), and the uncertainty surrounding its construction.[16] According to the AG, the construction of the Ohio River supply line remains uncertain because the Kentucky River Authority has not yet completed its safe yield analysis of the Kentucky River Basin. The AG points to Kentucky-American's acknowledgement that the Kentucky Water Resources Research Institute Study results are preliminary, and that the study group is modifying its forecasting model. The AG concludes that Kentucky-American has failed to demonstrate a sound basis for deviating from the prior Commission decision of this issue.

To support its position that the Ohio River supply line should be included in rate base, Kentucky-American points to the finding in the 1991 Schumaker & Company management audit that the current source of water is inadequate to meet demands in extreme drought conditions over the next 10 years. Further, Kentucky-American claims

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90-13	Kentucky Aquatic Study	$ 412,005
90-14	Source of Supply Evaluation	196,691
92-12	Source of Supply	256,142
92-12	Source of Supply	+ 299,944
Total Ohio River Supply Line Costs		$ 1,164,782

16 Final Order, page 14.

that its customers deserve to have it pursue a solution to the source of supply problem and, consequently, including the Ohio River supply line project in CWIP is warranted.[17]

Based on its projections of future system demands, Kentucky-American determined that it required an additional source of water. To provide this new water source, Kentucky-American began preliminary work to construct a water transmission line to purchase treated water from the Louisville Water Company. In Case No. 92-452, Kentucky-American requested rate recovery of the preliminary planning and design costs for the Ohio River supply line and the Commission denied that recovery. Based on a request of the AG, the Commission initiated Case No. 93-434[18] to investigate Kentucky-American's future demand and its sources of supply.

In Case No. 93-434, the Commission determined that the three previous safe-yield analyses of the Kentucky River did not consider the impacts of leak repairs or the planned addition of valves to facilitate the mining of river pools. Consequently, the Commission concluded that it was impossible to reach a definitive conclusion as to Kentucky-American's need to develop a supplemental source of supply until a conclusive safe yield analysis of the Kentucky-River is performed.[19]

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17 Id.

18 Case No. 93-434, An Investigation of the Sources of Supply and Future Demand of Kentucky-American Water Company.

19 Id., pages 6 and 7.

The safe yield analysis of the Kentucky River is scheduled to be completed in December 1996.[20] Therefore, the issue of Kentucky-American's need for an additional source of supply cannot be addressed until sometime in 1997. In addition, Kentucky-American indicated that it does not intend to file for a Certificate of Public Convenience and Necessity to construct the Ohio River supply line before January 1998.[21]

The USoA requires that any preliminary construction costs be recorded in Account 183 - Preliminary Survey and Investigation Charges, until actual construction begins. Therefore, until Case No. 93-434 is concluded and a subsequent decision is made on the need for a Certificate of Public Convenience and Necessity, construction of the Ohio River supply line is uncertain. The Commission will accept the AG's adjustment to remove the cost of the Ohio River supply line from rate base, thereby reducing rate base by $1,164,782.

Just as Kentucky-American's utility plant is dependent upon its construction forecasts and budgets, so too is its CWIP dependent on its construction forecasts and budgets. Therefore, Kentucky-American's forecasted level of CWIP should be reduced by the slippage factors, thereby resulting in a further reduction of CWIP of $596,645.

Customer Advances. Kentucky-American forecasted the monthly receipts, refunds, and transfers to Contributions In Aid of Construction from customer advances through the end of the forecasted test period. A 13-month average of the forecasted customer advance balances for the period August 1996 through August 1997 was used

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20 Kentucky-American's Response to Item 17(b) of the Commission's March 13, 1996 Order.

21 Kentucky-American's Response to Item 26 of the Commission's April 17, 1996 Order.

by Kentucky-American to arrive at its forecasted accumulated depreciation of $11,485,139.[22]

The receipt of customer advances is dependent on the level of construction and a reduction in the construction budget has a correlating effect on the balance of customer advances. To be consistent, forecasted customer advances has been reduced by $4,539 to reflect the slippage factor adjustment made to utility plant and CWIP.

Deferred Maintenance. Kentucky-American's 13-month average of unamortized deferred maintenance reflects maintenance projects completed and deferred and projects that are forecasted to be deferred. A 13-month average of the forecasted unamortized deferred maintenance balances for the period August 1996 through August 1997 was used to arrive at Kentucky-American's forecasted unamortized deferred maintenance balance of $2,949,766.[23]

At the hearing Kentucky-American indicated that the following forecasted deferred maintenance projects had been completed: M-977, M-980, M-990, RRS Roof, KRS hydrotreator #4, and Incline Car. To reflect the actual costs of these completed projects in the forecasted test period, the unamortized deferred maintenance has been decreased by $23,131, operating expenses decreased by $2,775, and net operating income increased by $1,655.

Deferred Debits. Kentucky-American's 13-month average of unamortized deferred debits reflects items deferred in prior cases, items recognized by the

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22 Direct Testimony of Douglas G. Fuller, page 5.

23 Id., page 7.

Commission in prior cases, and several deferred costs that Kentucky-American has proposed to be recognized in this proceeding. A 13-month average of the forecasted unamortized deferred debit balances for the period August 1996 through August 1997 was used by Kentucky-American to arrive at its forecasted unamortized deferred debits of $603,431.[24]

The AG opposed inclusion of the unamortized cost of the automated meter reading study in rate base on the basis that it was not justified. He argued that the cost is a non-recurring expenditure that should be shared by stockholders and ratepayers in accord with Commission precedent for similar expenditures, and that Kentucky-American has not demonstrated why a deviation from this precedent is warranted.[25]

Kentucky-American responded with three reasons why the unamortized cost should not be excluded from rate base: 1) a study like the automated meter reading study allows it to evaluate the potential to provide more efficient and higher quality service to its customers; 2) failure to evaluate such projects will subject the customers to declining efficiencies and cost prohibitive activities; and 3) failure to recover the cost of this type of study would result in its inability to earn its authorized rate of return and act as a disincentive to perform future research.[26]

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24 Direct Testimony of Lisa M. Pellock, pages 3 and 4.

25 Brief of the AG, page 8.

26 Rebuttal Testimony of Lisa M. Pellock, page 5.

The Commission finds that when and if an automated meter reading program becomes feasible, it should result in efficiencies that would benefit both the stockholders and ratepayers. However, Kentucky-American's ratepayers are not currently receiving a benefit from the automated meter reading program and there is no certainty that such a program will be implemented.

The Commission finds that ratepayers receive no current benefit from the automated meter reading study and, therefore, the financing or carrying costs should be borne by Kentucky-American's stockholders. Since this expenditure has been specifically excluded from rate base, Kentucky-American has no right to earn a return on it. Consequently, there will be no affect on Kentucky-American's ability to earn its authorized return on the rate base found reasonable herein. Furthermore, the Commission is not persuaded that rate base treatment is necessary or appropriate to create an incentive for Kentucky-American to undertake similar studies and research in the future. The Commission accepts the AG's adjustment and will reduce forecasted deferred debits by $97,144.

Similarly, Kentucky-American included the unamortized costs of the billing and tariff group ("BAT group") in rate base. The first recommendation of the BAT group was for Kentucky-American to implement monthly billing, a process that will decrease the time between the provision of water service and the receipt of payment, which will benefit the stockholders. The ratepayers will in turn benefit from the reduction in the cost of hidden leaks.

Excluding the unamortized cost of the BAT group from rate base will recognize the stockholder benefit while allowing the full recovery of the cost from the ratepayer. The Commission has reduced forecasted deferred debits by an additional $109,969, for a combined reduction of $207,113.

Deferred Income Taxes. Kentucky-American analyzed 12 separate deferred tax items. Each item has been recognized by this Commission as a rate base element in prior rate cases except for the: AMR Study, disinfection studies, residual site closure expenses, BAT group expense, and Lake Ellerside Dam Study. Kentucky-American calculated 13-month averages for each tax separately and then combined them to arrive at a forecasted deferred income tax balance of $17,221,697.[27]

Kentucky-American discovered three errors in its calculation of deferred income taxes and deferred investment tax credit. Correcting these errors and reflecting the aforementioned reductions to utility plant and deferred debits further decreases deferred income taxes by $164,236 and results in a reduction to deferred income tax expense of $58,597.

Source of Supply Investigation. The Commission, on motion of the AG, initiated a formal investigation of Kentucky-American's demand forecastings, demand side management and source of supply options. The investigation was docketed as Case No. 93-434 and, as of October 31, 1995, Kentucky-American had spent $285,668 on that case. Kentucky-American proposed to include these costs in rate base until that case

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27 Direct Testimony of Edward J. Grubb, page 10.

is concluded.[28] Since the investigation has not been concluded and will continue into and likely beyond the forecasted period, no provision for amortization has been proposed.[29]

The Commission views the costs of Case No. 93-434 as a preliminary cost of construction that should be afforded the same rate-making treatment as the other preliminary Ohio River supply line costs. Therefore, rate base has been reduced by $285,668 to reflect the transfer of those costs to Account No. 183 until the investigation is concluded.

Other Post Retirement Employee Benefits ("OPEB"). Beginning in the third quarter of 1993, Kentucky-American started to fund its OPEB costs to a Voluntary Employee Benefit Association ("VEBA"). From July 1993 through December 1994, Kentucky-American contributed $993,576 to the OPEB funds, of which $881,004 was expensed. For the same period the Commission had allowed in rates only $555,332, which results in $325,672 of OPEB not funded by ratepayers. Kentucky-American now requests this overfunding be included in rate base.[30]

Since Kentucky-American funded its OPEB at a level higher than allowed in rates, it argues that ratepayers are benefiting from the earnings in the VEBA accounts. The interest earned on the VEBA accounts is used to reduce the current level of OPEB

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[28] Direct Testimony of Lisa M. Pellock, pages 4 and 5.

[29] Brief of Kentucky-American, page 17.

[30] Direct Testimony of Edward J. Grubb, pages 10 and 11.

expense. Therefore, Kentucky-American contends that forecasted OPEB expense is less than it would have been had OPEB not been funded at the higher level.[31]

In Case No. 92-452, the Commission found that Kentucky-American's medical trend rates were excessive when compared to those of other utilities The Commission also found that Kentucky-American had made only nominal attempts to reduce its OPEB costs, while other utilities had implemented major changes to control and reduce similar costs. Based on these findings, the Commission reduced Kentucky-American's medical trend rate by 3 percent, which resulted in the funding difference cited by Kentucky-American.[32]

The AG characterizes this adjustment as an attempt to isolate one item and recover a return on it. If customer growth is greater or less than projected, or if sales are positively or negatively affected by weather, the AG notes that Kentucky-American does not seek to establish a deferred charge or credit for the shortfall or over-collection in revenues. Therefore, the AG urges rejection of Kentucky-American's attempt to rate base the over-funding of OPEB.[33]

In Case No. 92-452, the Commission found Kentucky-American's medical trend rate to be excessive and reduced it for rate-making purposes. The accuracy of the Commission's decision has been confirmed by the medical trend rate now proposed by Kentucky-American. It was Kentucky-American's decision to disregard the Order in Case

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31 Id.

32 Case No. 92-452, Order dated November 19, 1993, pages 32-33.

33 Direct Testimony of Thomas C. DeWard, page 10.

No. 92-452 and continue funding OPEB using a medical trend rate found excessive by this Commission. The continued funding of OPEB at a level that exceeded the amount authorized in rates was a risk taken by Kentucky-American. The Commission finds that Kentucky-American should not now be rewarded for its decision to ignore the Order in Case No. 92-452. Therefore, the prior over-funding of OPEB should not be recovered from current ratepayers and the forecasted rate base has been reduced by $325,672.

Excessive Return Requirements. Because a forecasted test period uses a 13-month average rate base, the AG claims that Kentucky-American will over-collect in the first 6 months because rate base will be less than the average upon which rates are predicated.[34] Therefore, the AG argues that a forward looking test period requires an adjustment to prevent excessive returns, and Kentucky-American has not included such an adjustment.[35]

Kentucky-American contends that its earned rate of return exceeds its authorized return in the early months but falls short in the later months. This difference in returns is attributable to the use of an average rate base. Noting that rates must be set using a 13-month average rate base when a forecasted test period is used, Kentucky-American argues that any adjustment that involves the concept of setting rates on a monthly basis should be rejected.[36]

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34 Direct Testimony of Thomas C. DeWard, pages 15 and 16.

35 Brief of AG, pages 7 and 8.

36 Brief of Kentucky-American, pages 31 and 32.

All rate applications supported by a fully forecasted test period must conform to 807 KAR 5:001, Section 10(8)(c), which requires capitalization and net investment rate base to be based on a 13-month average for the forecasted test period. Kentucky-American's application conformed to this regulation but the thrust of the AG's adjustment would be to reduce the balances to less than 13 months. Furthermore, the Commission finds no merit in the argument that an adjustment is needed to eliminate excess earnings in the first 6 months of the test period because any such excess earnings will be offset by under-earnings in the last 6 months. Rates are set on an annual, not monthly, basis and capitalization and rate base are calculated on 13-month averages to offset early over-earnings against later under-earnings. The Commission finds that the AG's adjustment should be denied.

AFUDC Overstatement. The AG proposed to reduce rate base by $477,539, stating that Kentucky-American has overestimated the accrual of AFUDC since it was accrued on gross plant balances before customer retention and accounts payables were deducted.[37]

According to Kentucky-American, the AG is advocating the use of cash basis accounting for the booking of AFUDC. Kentucky-American argues that the AG's proposed adjustment violates the 1988 USoA, which requires utilities to use accrual method of accounting.[38]

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[37] Direct Testimony of Thomas C. DeWard, page 16.

[38] Brief of Kentucky-American, page 32.

The AG proposed a similar AFUDC adjustment in Case No. 10481.[39] In that proceeding the Commission determined that the AG's methodology would result in a timing difference by shifting the accrual of AFUDC from the point of actual cost to the date of cash payment, which is cash basis accounting. The shifting of AFUDC accrual would not have a material impact on rate base and would violate the USoA requirement that utilities use accrual accounting.[40]

The evidence now presented by the AG leads the Commission to reaffirm its findings in Case No. 10481. Therefore, the AG's proposed adjustment is denied.

Accounts Payable. The AG claims that a lead/lag study accounts for expenses, but does not account for expenditures for CWIP, materials and supplies, and deferred maintenance which are offset in part by accounts payable. According to the AG, the mere accrual of these items by Kentucky-American does not represent the actual outlay of cash. In fact, initial additions to CWIP, materials and supplies, and deferred maintenance are offset by accounts payable, a cost free liability. To recognize that there is no cash outflow until the actual invoice is paid, the AG proposed to reduce Kentucky-American's forecasted rate base by $1,187,276.[41]

Kentucky-American claims that the AG's assumption that all construction expenditures made during a month will be accounts payable at the end of the month is false because numerous construction expenditures are paid in the same month they are

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39 Case No. 10481, Notice of the Adjustment of the Rates of Kentucky-American Water Company Effective on February 2, 1989, Order issued August 22, 1989.

40 Id., page 14.

41 Direct Testimony of Thomas C. DeWard, page 11.

booked. Furthermore, since contract retentions are already deducted from rate base, to assume that all current expenditures are accounts payable would double-count the accounts payable reflected in contract retentions.[42] Kentucky-American's capital expenditures are based on cash flow estimates, and thus it argues that the AG's proposed accounts payable adjustment is contradictory.[43]

The evidence presented by the AG is unclear and unpersuasive. Any of Kentucky-American's construction expenditures that are funded in the short term by accounts payable could delay withdrawals from its short-term line of credit. Therefore, the cost free liability would be reflected in Kentucky-American's forecasted capital structure. For these reasons the AG's proposed adjustment is not accepted.

Working Capital. Kentucky-American proposed a cash working capital allowance of $940,000 for the forecasted period. This represents a significant decrease from prior rate cases due to Kentucky-American's proposal to read meters on a monthly basis. The proposed working capital allowance is based on a lead/lag study performed on the historical data for the 12-month period ending March 31, 1992, which was modified to reflect: (1) the OPEB expense which is being paid quarterly; (2) the pension expense which is paid in the middle of each calendar quarter; and (3) salaried employees being paid biweekly as opposed to bimonthly.[44] Kentucky-American described its lead/lag study as:

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42 Rebuttal Testimony of Edward J. Grubb, pages 14 and 15.

43 Brief of Kentucky-American, page 30.

44 Direct Testimony of Lisa M. Pellock, page 7.

> This method measures the net time lag between the date when customers receive service from the Company and the date when they pay for those services (revenue lag), and the lag between the date the Company receives goods and services and the date they pay for those goods and services (expense lag).[45]

Kentucky-American assigned a zero lag to net earnings because as service is rendered to the customer, net earnings will be retained and reinvested until paid to the stockholder as a dividend. The investment in utility plant is provided by the stockholders and depreciation expense represents the recovery of that plant investment from the ratepayers over the life of the utility plant. Because of the considerable delay in the recovery of these depreciation charges from the ratepayers, Kentucky-American assigned a zero lag to depreciation expense. For those same reasons deferred income taxes is assigned a zero lag.[46]

The AG proposed to reduce Kentucky-American's cash working capital by $660,076 to reflect the following proposed adjustments to Kentucky-American's lead/lag study:

(1) Remove net income from the calculation of cash working capital because Kentucky-American does not remit its earnings to its parent on a daily basis. Thus, including net income in the lead/lag study does not match actual conditions.[47]

(2) Replace the zero lag days assigned to depreciation expense and deferred tax expense with the median service day lag of 12.98 days. Assigning a zero lag

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45 Id., page 6.

46 Id., pages 9 and 10.

47 Direct Testimony of Thomas C. DeWard, page 13.

ignores the fact that depreciation expense and deferred income taxes occur ratably over the month. This is identical to the treatment given to interest expense.[48]

(3) Reflect the time between when a check is written and the date it actually clears the bank. The AG estimates that lag to be 5 days.[49]

The lead/lag study Kentucky-American presented in this proceeding is the same study approved by this Commission in Case No. 92-452. In that proceeding the AG proposed the same adjustment to eliminate net income from Kentucky-American's lead/lag study. The Commission did not accept the AG's proposed adjustment in that case for the following reason:

> Theoretically, net earnings are earned when customer service is provided, and become the property of the stockholders. This requires that a cash working capital requirement should be recognized for the lag in receipt of operating income.[50]

The AG admitted that he was not aware of any jurisdiction where non-cash items are assigned a revenue lag other than the full revenue lag incorporated as a part of the utility's study.[51] Furthermore, the AG was unable to cite any publications or journals that supported his position regarding depreciation expense and deferred income taxes.[52]

Kentucky-American claims that the sample size of 100 checks used by the AG to calculate check clearing time is inadequate and many of the checks reviewed by the AG

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[48] Id., pages 13 and 14.

[49] Id., pages 14 and 15.

[50] Order issued November 19, 1993, page 20.

[51] Commission's Order issued June 5, 1996, Response to Item 13(a).

[52] Id., Response to Item 13(b).

are for capitalized or below the line expenditures. According to Kentucky-American, 66 percent of the forecasted net operating funds are electronically transferred and would have a zero lag.[53] Kentucky-American also argued that, "At some point the effort reaches diminishing returns -- time and money should not be expended trying to determine the impact of each and every financial transaction on the revenue and expense lags."[54]

The evidence presented by Kentucky-American shows that a complete, in-depth analysis of the check clearing time for expenses and revenues would be cost prohibitive because the cost of such an analysis would outweigh any potential benefit to the ratepayer. None of the evidence presented by the AG has persuaded the Commission to revise its earlier decisions regarding the accuracy and reliability of Kentucky-American's lead/lag study. Therefore, the AG's proposed lead/lag study adjustments are denied.

Kentucky-American's lead/lag study as filed in this proceeding supports a 1/16 cash working capital formula. Using the formula approach, the Commission has reduced forecasted cash working capital by $36,524 to reflect Commission adjustments to Kentucky-American's forecasted operations.

The Commission has determined Kentucky-American's net investment rate base to be as follows:

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53 Rebuttal Testimony of Lisa M. Pellock, page 4.

54 Brief of Kentucky-American, pages 19 through 21.

Utility Plant	$ 180,121,211
Utility Plant Acquisitions Adjustment	(125,986)
Accumulated Depreciation	(29,426,200)
Accumulated Amortization	(7,674)
Net Utility Plant Investment	$ 150,561,351
CWIP	2,802,902
Working Capital Allowance	903,476
Other Working Capital Allowance	394,263
Contributions In Aid Of Construction	(13,014,723)
Customer Advances	(11,480,600)
Deferred Income Taxes	(17,057,461)
Deferred Investment Tax Credits	(181,139)
Deferred Maintenance	2,926,635
Deferred Debits	396,318
Contract Retention	(173,283)
Net Investment Rate Base	$ 116,077,739

Income Statement

Kentucky-American reported base period and forecasted period net utility operating income of $10,296,264 and $9,595,949, respectively.[55] Kentucky-American's forecast is reasonable and has been accepted for rate-making purposes with the following exceptions:

Weather Normalization. In Case No. 92-452, Kentucky-American began using a forecasted test year to support its rate application. At that time, the Commission directed Kentucky-American to begin weather normalizing its water demand projections for selected customer classes. The Commission was aware that Kentucky-American lacked sufficient data to build a rigorous model. Consequently, Kentucky-American has been employing a two step weather normalization procedure.[56] First, an annual series of

[55] Exhibit 38, Schedule A, page 1.

[56] Direct Testimony of Edward J. Grubb, pages 17-18 and KAWC Workpapers W/P-2-2.

weather forecasts is obtained using monthly data for each year of data. Then to further account for weather variations over time, the annual forecasts are averaged together.

The AG, criticizing Kentucky-American's forecasting procedure as being inherently flawed and too imprecise to generate reliable forecasts, recommended that Kentucky-American be ordered to construct a more statistically sound weather normalization model.[57] The AG conceded the existence of flaws in his own weather normalization model and acknowledged that his corrected forecasts were very close to Kentucky-American's.[58] Based upon the assumption that Kentucky-American continues to file rate cases on a regular basis, the AG recommended that Kentucky-American's obligation to weather normalize its demand forecasts be reconsidered.[59]

Taken broadly, the Commission finds merit in the AG's criticism of Kentucky-American's weather normalization procedure. Due to the frequency of Kentucky-American rate case filings, its forecasts tend to be short term in nature and any systematic forecasting error present in the model will tend to be small. However, if the time between Kentucky-American's rate cases should lengthen, the reliability of its forecasts could erode quickly. The Commission finds that Kentucky-American's weather normalization procedures are reasonable for the short-run and, therefore, appropriate for use in this case. However, in its next rate case Kentucky-American should, in addition

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57 See generally Rubin Direct Testimony at Section V, Rebuttal, Rubin Surrebuttal, and Brief of AG, page 13.

58 Id. and Transcript of Evidence ("T.E."), Vol. II, pages 151-161, 178-188.

59 Brief of AG, page 13.

to using its own weather normalization procedures, construct and utilize a single model based upon all the reliable data available.

Monthly Billing. Kentucky-American has proposed to implement monthly meter reading and billing for all customers. Currently, Kentucky-American bills a small number of customers on a monthly basis with the majority of customers billed on a quarterly basis. Kentucky-American cited numerous advantages to itself and its customers with monthly billing. These include improved cash flow and budgeting, the ability to identify leaks in a more timely manner and lower customer payments for hidden leaks, resulting in better utility-customer relations. In addition, uncollectible expense should decrease as a result of a shorter billing period and customers will be sent more timely signals regarding their water usage and its cost. Many customers will also find it easier to budget due to a monthly bill rather than a quarterly bill. [60]

All parties of record (except the limited intervenor who neither appeared at the hearing or otherwise participated in the case) agreed that monthly billing would be in the best interest of both Kentucky-American and its customers. The Commission finds that Kentucky-American's proposal to implement monthly meter reading and billing is reasonable and is approved.

Cell Site Revenue. The AG proposed an adjustment to increase revenue by $2,000 for the potential lease to BellSouth Mobility of a site next to the Lexington Reservoir to locate a cellular telephone antenna.[61] The adjustment was based on

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60 Direct Testimony of Roy W. Mundy II, pages 8-9.

61 Direct Testimony of Thomas C. DeWard, Schedule 18.

Kentucky-American's discussions with Cellular One for the lease of a cell site in a different location which is jointly owned by Kentucky-American and the University of Kentucky. Kentucky-American stated that it has no lease with either BellSouth Mobility or Cellular One and that Cellular One was unwilling to pay the amount requested and was exploring other options.[62] The Commission finds no credible evidence that Kentucky-American will actually receive any lease payments. Thus, the AG's proposed adjustment is speculative and should be denied.

Reconnection Fees. Kentucky-American proposed revenues from reconnection fees in the amount of $138,000. The AG proposed to increase those revenues by $46,492 based on a calculation that the fees collected in 1995 represented a 20.98 percent increase over the amount collected in 1994. The AG presumed that the revenues will increase as a result of Kentucky-American billing for sewer service, beginning in July of 1995, for the LFUCG.[63] Kentucky-American maintains that the relationship of water shut offs to fees collected is linear and the 1996 decrease in shut offs indicates that its proposal is reasonable. Actual year to date May 1996 reconnection fees totaled $47,595 compared to $51,757 for the same period in 1994.[64]

In 1994 Kentucky-American collected $126,356 in reconnection fees while in 1995 it collected $152,870, an increase of $26,514. While shut offs for nonpayment of sewer bills may initially increase, once customers realize that their water service will be

62 Kentucky-American's Response to AG Data Request No. 2, Item 27.

63 Direct Testimony of Thomas C. DeWard, Schedule 19.

64 Rebuttal Testimony of Coleman D. Bush, page 3.

disconnected for nonpayment of their sewer bills, shut offs should reach a predictable level. In recognition of this and the fact that the billing for LFUCG began in July of 1995, revenue from reconnection fees has been increased by $13,257 or one half of the increase experienced from 1994 to 1995. As a result of this adjustment, the Commission finds that revenue from reconnection fees should be $166,127, which results in an increase to net operating income of $16,744.

Revenues from LFUCG. Kentucky-American did not propose any adjustment to the annual billing and collection service revenue received from LFUCG to perform sewer billing. The current contract is for quarterly sewer billing and in this case Kentucky-American has proposed to bill water on a monthly basis.

The AG proposed to increase the current annual fee charged to LFUCG by $401,349 to recover 50 percent of the additional costs for monthly meter reading and billing.[65] The AG maintains that LFUCG will benefit from the more rapid collection of sewer bills and a reduction in uncollectible accounts and, therefore, should pay its portion of the additional costs.

Kentucky-American has contacted LFUCG regarding an adjustment to its contract to include additional costs for monthly billing. In a letter to Kentucky-American dated June 11, 1996, LFUCG calculated the annual cost for monthly reading and billing to be $259,003, the same amount now charged, and proposed to renew the contract without any changes.[66]

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65 Direct Testimony of Thomas C. DeWard, page 21.

66 Rebuttal Testimony of Coleman D. Bush, page CDB-4.

The Commission agrees with the AG that LFUCG should pay its share of the increased cost. However, since Kentucky-American has been unable to obtain an agreement with LFUCG to pay any increase, any adjustment to revenue would be speculative and should not be made at this time. The Commission cautions, however, that all special contracts should cover the utility's cost of providing service. Kentucky-American should take the necessary steps to ensure that LFUCG pays its share of the increased costs to implement monthly billing.

Miscellaneous Revenues. As a result of its proposed conversion to monthly billing, Kentucky-American estimated that its bank service fee revenue in the form of returned check charges would increase by $12,384.[67] Kentucky-American estimated that revenue from hidden leaks would decrease $19,749, also due to the conversion to monthly billing.[68] The Commission finds these adjustments to operating revenue to be reasonable and will accept them. These adjustments result in a net reduction to net operating income of $4,393.

Allowance for Funds Used During Construction ("AFUDC"). Kentucky-American included AFUDC of $292,504 in its forecasted operating revenues. The Commission has calculated AFUDC to be $204,140[69] on adjusted CWIP available for AFUDC and the

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67 Kentucky-American's Response to AG Data Request No. 1, Item 108.

68 Id., Item 89.

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CWIP available for AFUDC	$2,190,346
Overall Rate of Return	x 9.32%
AFUDC	$ 204,140

overall rate of return found reasonable herein. This results in a decrease to operating revenue of $88,364 and a decrease to net operating income of $52,698.

Labor. Kentucky-American forecasted labor expense of $4,969,423 based on 150 full-time employees, 3 percent pay raises on July 1, 1996 and July 1, 1997 for salaried and non-union employees, and pay raises for all union employees in accordance with the union contracts. The estimated employee level includes the additional personnel required to convert from quarterly to monthly meter reading and billing.[70]

According to the AG, the historical data shows that Kentucky-American has overestimated its workforce complement and, therefore, its estimate in this proceeding is unreliable. Even if Kentucky-American can show that at a particular point in time all positions are filled, history reflects that on average Kentucky-American's actual number of employees falls short of its "authorized" level of employees.[71] To eliminate this over-estimation, the AG proposed to reduce Kentucky-American's forecasted labor expense by $100,000, the difference between Kentucky-American's budgeted and actual 1995 payroll.[72]

Kentucky-American argues that the AG's analysis failed to consider that during any particular year a budgeted position will be vacant for a portion of the year. Although most vacancies will be filled very quickly, Kentucky-American still has to depend on independent contractors to fill the vacancies on a temporary basis. Kentucky-American

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70 Direct Testimony of Coleman D. Bush, page 9.

71 Brief of the AG, page 18.

72 Direct Testimony of Thomas C. DeWard, pages 24 and 25.

combined its 1995 labor expense and contract labor to show that total 1995 actual and budgeted labor costs were $5,295,124 and $5,291,380, respectively. This analysis shows that 1995 actual labor costs exceeded the budgeted amount. Kentucky-American concluded that the AG's adjustment should be rejected as being based upon inaccurate information and a faulty premise.[73]

Based upon a review of the evidence presented, the Commission finds that the AG's proposed adjustment is flawed because it did not take into consideration the total 1995 labor costs. As shown by Kentucky-American, when all labor costs are considered, there is no material difference between the actual and budgeted amounts. Therefore, the AG's proposed adjustment should be denied.

Talwalkar recommended eliminating the position of director of governmental affairs from Kentucky-American's forecasted labor expense. He claimed that the services provided by that position do not benefit the ratepayers and duplicate the functions of the community relations manager.[74]

The director of governmental affairs is responsible for communicating with government and regulatory entities to improve planning and inform these entities that Kentucky-American is a resource within the community. Since decisions by federal, state and local lawmakers, regulators, and policy makers directly impact the cost to provide water service, Kentucky-American claims that it is extremely important to inform

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[73] Brief of Kentucky-American, pages 56 and 57.

[74] Brief of Chetan Talwalkar, pages 8-9

these agencies of how their decisions will affect ratepayers. Thus, Kentucky-American asserts that this position is beneficial to its ratepayers.[75]

The Commission agrees with Kentucky-American's assessment of the need for a director of governmental affairs and the benefits to ratepayers. Therefore, the proposed adjustment to eliminate the position is rejected.

Incentive Compensation. The AG argues that it is the responsibility of Kentucky-American to demonstrate that a cost is appropriate before it is recovered from ratepayers and that Kentucky-American has failed to do so for its incentive compensation or bonus program. Therefore, the AG requests exclusion of the cost of benefits for highly compensated employees to the extent the benefits exceed those provided to all employees.[76] To eliminate these costs, the AG proposed to reduce forecasted operations by $121,027.[77]

Kentucky-American points to the recommendation of Schumaker & Company in the 1991 management and operations audit, that Kentucky-American consider a bonus program for its senior level management and for the Service Company executives. The incentive bonus plan adopted by Kentucky-American incorporates financial goals, customer service goals, and operational goals. According to Kentucky-American, tying incentives to the achievement of goals ensures that those eligible for the incentive compensation remain focused on those goals. Schumaker & Company pointed out that

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[75] Rebuttal Testimony of Roy W. Mundy, pages 5 and 6.

[76] Brief of the AG, pages 18 and 19.

[77] Direct Testimony of Thomas C. DeWard, page 25.

any costs of the incentive bonus program would be balanced by the savings incurred through the retention of employees and the elimination of costs to recruit, hire, and train senior level employees.[78]

The Commission finds that the incentive bonus program adopted by Kentucky-American not only reviews financial goals beneficial to the stockholders, but also includes service and operations goals beneficial to ratepayers. Customer service goals reviewed by Kentucky-American include water quality, reliability, and responsiveness. This also ensures that the service provided to ratepayers will improve. Kentucky-American has thus met its burden by showing that the cost of its incentive bonus plan is appropriate for rate-making purposes. Therefore, the AG's proposed adjustment is denied.

Group Insurance. In its application Kentucky-American sought recovery of $1,329,663 for group insurance expense. This included two components: $753,386 for life insurance and group medical insurance premiums for employees and their dependents; and $576,277 for recognition of OPEB expense.

The life and group medical insurance expense component was based on a projection of 150 full-time employees and the premiums which became effective December 1, 1994, adjusted for a forecasted 2.5 percent increase in medical insurance premiums effective January 1, 1997. Kentucky-American subsequently reduced this expense by $97,346 to reflect reductions in group insurance premiums effective February 1, 1996. These reductions resulted from Kentucky-American's cost containment efforts which

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[78] Brief of Kentucky-American, pages 57 and 58.

included discontinuing its basic major medical plan option and increasing the deductibles and decreasing certain coverage levels for its comprehensive medical plan option.[79]

The AG proposed no adjustments to this component of group insurance expense. The Commission finds that Kentucky-American's revised forecast of $656,040 for life and group medical insurance expense is reasonable and is accepted.

OPEB Expense. Kentucky-American's original request of $576,277 for OPEB expense was based on a 1995 actuarial report by Towers Perrin with an adjustment to reflect 150 full-time employees. The report used an initial health care cost trend rate of 11 percent for 1995, reaching an ultimate trend rate of 5.5 percent in 9 years.[80]

Kentucky-American subsequently revised its OPEB expense downward by $57,078. Of this reduction, $47,169 was attributable to a 1996 valuation by Towers Perrin and the elimination of the adjustment to reflect 150 employees. The remaining portion, $9,909, reflects retiree contributions.

The 1996 valuation used an initial health care cost trend rate of 9 percent for 1996, declining to an ultimate rate of 5.5 percent reached in 7 years for the comprehensive medical plan option. A flat 5.5 percent health care cost trend rate was used for the managed care plan option.[81] Kentucky-American's plan participants are split approximately equally between the two plans. Averaging the initial trend rates for the two

[79] Kentucky-American's Response to Item 202 of the Attorney General's Data Request No. 1.

[80] Direct Testimony of Edward J. Grubb, page 12.

[81] Rebuttal Testimony of Edward J. Grubb, page 21.

plans produces a 7.25 percent rate which is within a reasonable range of the trend rates used by three other Kentucky utilities.[82]

The AG contends that Kentucky-American's estimated OPEB expense is excessive due to inflated health care cost trend rates[83] and insufficient efforts to reduce OPEB costs.[84] The AG recommended reducing OPEB expense by at least $209,373 to reflect using the health care cost trend rates adopted by the Commission in Case No. 92-452.

The Commission finds that Kentucky-American has made significant efforts in the past few years to control its health care costs. It now offers a managed choice plan option, has eliminated its most costly basic major medical plan option, and has increased deductibles and decreased certain coverage levels for its comprehensive medical plan option. Considering the health care cost trend rates for both the comprehensive medical plan and the managed choice plan options, the rates are not unreasonable. Therefore, Kentucky-American's revised OPEB expense of $519,199 is accepted. However, the Commission expects Kentucky-American to continue its efforts to control and reduce health care costs and those efforts will again be fully reviewed in subsequent rate proceedings.

In summary, the total revised amount allowed for group insurance which includes life and group medical insurance expense and OPEB expense is $1,175,239. This results in a decrease to Kentucky-American's forecasted group insurance of $154,424, for an increase to net operating income of $92,095.

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[82] T.E., Volume II, pages 47-49.

[83] Direct Testimony of Thomas C. DeWard, page 24.

[84] Brief of the AG, page 17.

Pension Expense. Kentucky-American's application computed pension expense based on a 1995 actuarial report on the American Water System pension plan. The ratio of the total system SFAS 87 pension cost, as determined by the report, to the total system payroll was applied to Kentucky-American's pro forma level of payroll expense to determine a forecasted pension expense of $245,313. This expense was later reduced to $202,057 to reflect the 1996 SFAS 87 pension costs as calculated by Towers Perrin. The revised calculation also excluded from Kentucky-American's pro forma payroll expense the anticipated increase in labor costs to implement monthly meter reading.

The AG proposed no adjustments to Kentucky-American's pension expense. The Commission finds Kentucky-American's revised pension expense of $202,057 to be reasonable for rate-making purposes. This results in a reduction to Kentucky-American's forecasted pension expense of $43,256, for an increase to net operating income of $25,797.

Service Company Charges. For the forecasted period, Kentucky-American projects that it will be billed $1,380,626[85] for services rendered by an affiliate, the American Water Works Service Company ("Service Company"). The Service Company provides the following services, at cost, to all American System operating subsidiaries: accounting; administrative; engineering; financial; information systems; water quality lab testing; rates and revenue; and work place safety. These costs are billed to the

85 Commission's Order issued January 30,1996, Response to Item 34(a).

operating subsidiaries based on the agreement that became effective on January 1, 1989 ("1989 Agreement").[86]

The 1989 Agreement uses the number of customers served by the operating subsidiaries as the basis to allocate all Service Company costs not directly billed to the operating subsidiaries. The 1989 Agreement replaced the 1971 Service Company agreement ("1971 Agreement") which used multiple factors for allocating services, depending upon the nature of the service.[87]

Kentucky-American claims that common sense dictates that there is a correlation between the accounting cost incurred and the number of customers served by the operating companies. Because improvements to the accounting system have eliminated the use of vouchers, Kentucky-American asserts that the 1971 Agreement is obsolete. Kentucky-American explained that the obvious advantages for using the number of customers as the allocation factor are stability, consistency, and reflecting that larger companies require more time and effort. Because it advocates monthly meter reading and billing, Kentucky-American contends that allocating customer billing charges based on the number of bills is inappropriate.[88]

Kentucky-American has focused its evidence on showing why the 1971 method for allocating accounting charges is inappropriate. However, it failed to produce any study or evidence to support the 1989 Agreement's use of customers as the allocation

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86 Direct Testimony of Edward J. Grubb, page 6.

87 Brief of Kentucky-American, page 58.

88 Id., page 59.

methodology. In Case No. 90-321,[89] the Commission recognized that the 1989 Agreement was a less-than-arms-length transaction and expressed concern that the allocation selected was oversimplified, did not accurately track the costs, and allocated costs without separate consideration of the underlying characteristics of each cost.

Since Kentucky-American has presented no additional evidence to justify the allocation basis used in the 1989 Agreement, the Commission finds no basis to depart from its prior decision that the 1971 Agreement should be used for rate-making purposes. Therefore, operating expenses have been decreased by $134,113,[90] for an increase in net operating income of $79,982.

Regulatory Expense. Kentucky-American's forecasted regulatory expense of $308,465 reflects amortizing the cost of this rate case, the cost-of-service study, and the cost of the billing and tariff group over 2 years and amortizing the depreciation study over 5 years.[91]

The AG recommended that the Commission establish a disincentive for the filing of rate cases by Kentucky-American. Specifically, the AG suggested the adoption of a policy to limit the recovery of rate case expenses to the ratio of the additional revenues granted to the amount requested. If a utility is only granted 25 percent of the amount requested, then under the AG's proposal only 25 percent of the rate case expenses

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89 Case No. 90-321, Notice of the Adjustment of the Rates of Kentucky-American Water Company Effective on December 27, 1990, Order issued May 30, 1991.

90 Commission's Order issued January 30,1996, Response to Item 34(a).

91 Direct Testimony of Lisa M. Pellock, page 2.

would be recoverable.[92] In Case No. 8571,[93] the AG argued that complexity of litigating forecasted test periods does not support an increase of 5 times of the cost determined reasonable.[94]

Kentucky-American claims that there is no precedent in Kentucky to support the AG's proposed adjustment and that there has been no suggestion that its rate case expenses have been unreasonable or imprudent. Therefore, the forecasted costs should be allowed in their entirety.[95]

It appears to the Commission that the increase in rate case costs cited by the AG is largely attributable to the additional work needed to respond to the voluminous data requests necessitated by the use of a future test year. Budgeting of a forecasted test period is an inexact science which requires a review of the historical relationship between budgets and actual results to determine if the method used to develop the forecast is reasonable. This review requires an analysis of a significantly greater amount of information which translates into increased rate case costs.

Therefore, the Commission finds that Kentucky-American's rate case expenses are reasonable. However, upon review of Kentucky-American's proposed amortization period for the BAT group costs, the Commission finds that three years, rather than the

92 Direct Testimony of Thomas C. DeWard, page 27.

93 Case No. 8571, Notice of Adjustment of the Rates of Kentucky-American Water Company Effective On and After September 17, 1982.

94 Brief of the AG, page 20.

95 Brief of Kentucky-American, pages 63 and 64.

two, is more reasonable considering the long-term impacts of the issues considered by that group. The one year increase in the amortization period of the BAT group results in a decrease to forecasted regulatory expense of $21,588, and an increase to net operating income of $12,875.

Further, the Commission finds no merit in the AG's proposal to limit rate case expenses to a ratio of additional revenues granted to additional revenues requested. There is no evidence that rate case expenses do, or should, vary in proportion to the amount of additional revenues granted. Pursuant to KRS 278.180, a utility has the discretion to choose the timing of its rate case applications. There is nothing in KRS Chapter 278 that authorizes the Commission to adopt a disincentive to, in effect, penalize a utility for exercising its right to seek rate relief.

Relocation Expense. Pursuant to the policy of the American Water Works Company, Roy Mundy II was reimbursed $72,346 for costs he incurred in relocating from New Jersey to Lexington, Kentucky, during the period December 1993 to January 1995. Kentucky-American has proposed to amortize this cost over three years and has included 12 months of amortization of $24,120 in its forecasted operations.[96]

The AG claims that moving costs that are either non-recurring or excessive are improper for recovery from ratepayers. The amortization included in this forecasted period is for a relocation that took place long before the test period in this proceeding. Because Kentucky-American has failed to demonstrate the propriety of this amount, it should be deducted from forecasted operations.

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96 Id., page 60.

Kentucky-American argues that it is customary for a company to pay the relocation expenses incurred by its management and that the relocation will save the cost of training, because an existing employee does not require training. Kentucky-American also claims that there is a risk involved when a new individual is hired based on a resume and interview.[97]

In Case No. 10069,[98] the Commission determined that the transfer of an employee to Kentucky-American was beneficial, but there was no showing that the transfer hinged on the reimbursement of the employee's moving expenses. Because the moving expense had already been incurred and was found to be non-recurring and excessive, it was removed from test period operations.

The evidence in this case leads the Commission to similarly find that this past moving expense is non-recurring and excessive. Therefore, the Commission finds that the AG's adjustment to eliminate the amortization for the moving cost is reasonable and should be accepted. This results in a reduction to forecasted operating expense of $24,120, for an increase to net operating income of $14,385.

Employee-Related Expenses. The AG proposed to exclude $59,962 of forecasted employee-related expenses for employee parties, gifts, service award banquets, promotional items, subscriptions to utility publications, and board of director fees. The AG argues that these costs are inappropriate for rate-making and that a legion of

97 Brief of Kentucky-American, page 61.

98 Case No 10069, Notice of Adjustment of the Rates of Kentucky-American Water Company, Order issued July 31, 1996.

precedent exists to exclude them. The AG further argues that Kentucky-American has offered no reasonable or reliable basis for recovering these costs and that this type of "warm feeling" development is the responsibility of Kentucky-American's stockholders. The AG concluded that ratepayers should not be required to pay for costs not required for the furnishing of utility service without regard to the actual amount of the expense.[99]

The Commission partially agrees with the AG's assessment and finds that some of these costs are inappropriate for rate-making. The inappropriate items are $3,800 for the employee Christmas gifts, $3,038 for the Service Company recognition banquet and gifts, and $5,025 for miscellaneous promotional items. In a prior rate case the Commission determined that although these type of employee-related expenses may benefit employer/employee relations, Kentucky-American's ratepayers should not bear their costs. Kentucky-American has failed to provide any new evidence in this proceeding to persuade the Commission to change its position.

The remaining items identified by the AG that are reported above the line are for employee meals incurred in connection with work assignments, subscriptions to utility journals, and board of director fees. The Commission finds that these expenses are reasonable, rationally related to providing water service and should be allowed. Based on the Commission's decision to eliminate several employee-related expenses, an adjustment has been made to decrease forecasted operating expenses by $12,043. This results in an increase to net operating income of $7,182.

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[99] Brief of the AG, page 23.

Personal Use of Company Automobiles. The AG has proposed a reduction to forecasted operating expense of $32,737 to reflect the elimination of the estimated personal use of Kentucky-American's automobiles. According to the AG, Kentucky-American provides certain employees the use of an automobile around the clock and that any personal use of these automobiles by the employees would result in increased insurance, maintenance, and operating costs to the ratepayers. However, the AG stated that Kentucky-American should adopt a policy that its automobiles could not be used for personal travel above and beyond travel to and from work.[100]

Kentucky-American testified that there is a policy which limits the personal use of company automobiles to travel to and from work.[101] Therefore, the evidence demonstrates that the AG's proposed adjustment is not necessary and the Commission finds that it should be rejected.

Discretionary Expenses. The AG proposed to reduce Kentucky-American's forecasted discretionary expenses by $44,523. The AG argues that given Kentucky-American's requested increase of $3,400,000, it does not appear prudent to further increase rates to recover increases in discretionary expenses for seminars, employee travel, and company training. The AG determined that a 3 percent increase in these costs was inappropriate.[102]

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[100] Direct Testimony of Thomas C. DeWard, page 26.

[101] Rebuttal Testimony of Coleman D. Bush, page 14.

[102] Direct Testimony of Thomas C. DeWard, page 30.

Kentucky-American argues that it must react to changes in operating conditions, giving considerations to both ratepayers' and stockholders' requirements. Kentucky-American claims that expenses for training, seminars, and travel to industry association meetings are an important part of employee development and greatly benefit the ratepayers for that reason.[103]

The Commission agrees with Kentucky-American's assessment of the importance of employee training. Allowing employees to attend seminars and conferences improves employee development as well as employee moral. This translates into improved service which benefits Kentucky-American's ratepayers. For these reasons and those cited by Kentucky-American, the Commission finds that the AG's proposed adjustment should be rejected.

Non-Recurring Costs Associated with Monthly Meter Reading. The AG identified costs for converting to monthly meter reading and billing that are non-recurring and will not be incurred beyond the forecasted test period. The AG amortized these costs over two years and, therefore, proposed that forecasted operating expenses be reduced by $35,272.

Kentucky-American stated that it does not oppose a 2-year amortization of the non-recurring start-up costs to convert to monthly meter reading and billing. However, Kentucky-American requested that the unamortized portion be included in rate base, which is an increase of $20,422.[104]

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[103] Rebuttal Testimony of Coleman D. Bush, pages 14 and 15.

[104] Brief of Kentucky-American, page 45.

In the past, the Commission has determined that reasonable, non-recurring expenditures should be amortized rather than expensed. Therefore, the Commission has accepted the AG's adjustment to reduce forecasted operating expenses by $35,272, for a increase to net operating income of $21,035.

As with the unamortized cost of the BAT group, the Commission is of the opinion that converting to monthly meter reading and billing benefits Kentucky-American's stockholders and ratepayers. Therefore, while the amortization should be recovered from the ratepayers through the amortization expense, the carrying cost should be borne by the shareholders. This rate-making treatment most appropriately reflects the receipt of benefits by ratepayers and shareholders. Therefore, the Commission rejects Kentucky-American's proposed adjustment.

<u>Conversion to Monthly Meter Reading</u>. The AG proposed to reduce forecasted operating expenses by $100,000 to reflect proposed reductions in the cost of converting to monthly meter reading and billing. Noting Kentucky-American's obligation to provide service at the lowest reasonable cost, the AG argues that Kentucky-American's cost estimate of converting from quarterly to monthly billing is unreliable. Further, the AG claims that the labor component of the conversion is quite significant and that Kentucky-American has not adequately pursued joint meter reading with other utilities. The AG concludes that Kentucky-American has failed to show that it has made diligent efforts or explored all possibilities to minimize conversion costs.[105]

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[105] Brief of the AG, pages 22 and 23.

Kentucky-American claims that the AG has preconceived ideas on the cost to convert to monthly meter reading and billing, and argues that there is no basis for the AG's adjustment other than to deny the recovery of $100,000 in expenses. According to Kentucky-American, the proposed savings are nothing more than a "wish list" not well grounded in fact or logical reasoning.[106]

Kentucky-American is correct in its characterization of the AG's proposed savings as merely unreliable estimates with no supporting data. While joint meter reading with other utilities might reduce the cost to Kentucky-American, the study underway with Kentucky Utilities has not been completed. Thus, the potential for cost savings is unknown and unmeasurable at this time. Furthermore, Kentucky-American's meter readers are the lowest paid of the three local utilities as shown in a recent study.[107] Because the AG's proposed adjustment is not supported by the evidence of record, the Commission finds that it should be denied.

<u>Overmetered Water and Unaccounted For Water Volumes</u>. Mr. Talwalkar expressed concern that the amount of unaccounted for water ("UAF") may be artificially high due to meters reading fast.[108] He recommended that the Commission initiate an investigation of Kentucky-American's calculation of UAF and implement measures to be taken to adjust UAF volumes charged to customers when overmetering occurs.[109]

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106 Rebuttal Testimony of Coleman D. Bush, pages 10 and 13.

107 <u>Id.</u>

108 Brief of Chetan Talwalkar, page 2.

109 <u>Id.</u>, page 8.

Kentucky-American responded by stating that its customers did not pay more due to over registration of meters.[110] Further, Kentucky-American's adoption of monthly meter reading and billing will expedite the discovery of leaks, thereby reducing system losses. The Commission finds the evidence does not demonstrate an artificially high level of unaccounted for water or that ratepayers are being over charged for unaccounted for water. Thus, there is no justification for an investigation at this time.

Maintenance. Kentucky-American categorizes its maintenance as either non-programmed which is non-specific maintenance forecasted on historical trends, or programmed which is specific projects outlined as part of the American System's Operational Manual. For the forecasted period, Kentucky-American budgeted non-programmed and programmed maintenance of $641,008 and $506,852, respectively.[111]

From 1986 through 1995, Kentucky-American's actual programmed maintenance was 82.74 percent of its budgeted level.[112] As previously discussed, Kentucky-American's construction budgets have historically exceeded its actual results. Given this historic relationship and Kentucky-American's evidence that the amount budgeted for the forecasted period is as reliable as the 10 year average,[113] the programmed maintenance expense should be reduced to 82.74 percent of the amount forecasted.

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110 Rebuttal Testimony of Stan Stockton, pages 4-5.

111 Direct Testimony of Stan M. Stockton, pages 27 and 28.

112 T.E., Volume 1, page 25.

113 Id.

This results in a reduction to maintenance expense of $64,760,[114] which results in an increase of $38,621 to net operating income.

Overstatement of Federal and State Income Taxes. The AG has reduced income tax expense by $39,362 to eliminate the overstatement of taxable AFUDC. The AG claims that AFUDC is not taxable for federal and state income tax purposes. However, interest must be capitalized for income tax purposes based on the incremental cost of debt. The AG based its income tax reduction on the 5 year average difference between capitalized interest and AFUDC.[115]

Kentucky-American claims that the AG's adjustment is invalid because the level of AFUDC has varied over the years, AFUDC rates for book and tax purposes have changed over the years, and the construction projects that generated the past AFUDC are not the same projects in this case.[116]

The Commission finds that the AG's adjustment improperly assumes there is a relationship between AFUDC booked in prior years and the AFUDC forecasted in this proceeding. Kentucky-American has shown that there is no relationship between the historical and future levels of AFUDC. Furthermore, the forecasted AFUDC for taxes is based on the weighted cost of debt which is in accordance with the AG's argument. Therefore, the Commission finds that the AG's proposed adjustment should be rejected.

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114 Information Requested at Hearings, Item 9, $375,204 (Program Maintenance Excluding Deferred Maintenance Amortization) x 17.26% = $64,760

115 Direct Testimony of Thomas C. DeWard, page 36.

116 Rebuttal Testimony of Edward J. Grubb, page 29.

Depreciation Expense. To arrive at its forecasted depreciation expense of $4,217,284, Kentucky-American multiplied the 13-month average of utility plant in service by the depreciation rates proposed in this proceeding.

According to the AG, Kentucky-American's estimate for the cost associated with the removal of services is unreliable. Therefore, the AG proposed to reduce depreciation expense by $168,350, which he claims to be 50 percent of the excess removal cost.[117]

Kentucky-American states that the historical cost of removal information is the only rational basis for estimating the future cost of removal.[118] The depreciation study presented in this proceeding is actually an update of the study previously reviewed and approved by this Commission in Case No. 90-321.

The Commission finds that Kentucky-American's depreciation study, including the cost for removal of services, is reasonable. The study was approved five years ago and has been used for rate-making purposes in four prior rate cases. The AG has provided no credible evidence to persuade the Commission to reverse its prior decisions. Therefore, the proposed adjustment should be denied.

As with accumulated depreciation, depreciation expense is directly dependent on the level of utility plant. The reduction to utility plant will result in a decrease to forecasted depreciation expense of $40,080 and an increase to net operating income of $23,903.

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117 Direct Testimony of Thomas C. DeWard, page 35.

118 Brief of Kentucky-American, page 41.

Toyota Main Depreciation. The AG proposed to exclude the depreciation expense associated with the Toyota water main, arguing that Kentucky-American has collected excessive depreciation on a cost free capital contribution. The AG requests that this excess be returned to the ratepayers in an orderly fashion.[119]

Kentucky-American argues the Commission has allowed it to recover depreciation expenses on the Toyota main in Case Nos. 10481, 90-321, 91-361, and 92-452. According to Kentucky-American, the AG's adjustment to return to the ratepayers over a 5 year future period any excess collections of the Toyota main depreciation constitutes retroactive rate-making.

This adjustment has been proposed by the AG in previous Kentucky-American rate cases and the Commission has consistently found that the Toyota main is supported by cost-free debt in the form of a customer advance. Customer advances are offset against rate base to ensure that the investment supported by cost-free capital does not earn a return for the stockholder. However, the Commission's main extension regulation, 807 KAR 5:066, Section 11, creates a liability for Kentucky-American to refund the customer advance for a 10-year period if additional customers connect to the Toyota main. Thus, for rate-making purposes, the associated depreciation expense is included in the revenue requirement determination.

The Commission views the Toyota customer advance the same as any other customer advance and, therefore, it should be given the same rate-making treatment. The fact that the Toyota customer advance will be transferred to Contribution in Aid of

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[119] Brief of the AG, page 23.

Construction ("CIAC") in May 1997, with only a fraction of the advance being refunded, is of no consequence. Kentucky-American has a 10-year refund liability under 807 KAR 5:066, Section 11, and depreciation is a proper charge until that period is over.

The AG has presented no new evidence in support of his position. The Commission, having thoroughly reviewed this issue, finds that the evidence presented by the AG does not persuade us to depart from the established rate-making practice. Therefore, the adjustment should be denied.

Uncontested Issues. The AG proposed the following adjustments to Kentucky-American's operations which Kentucky-American has accepted:[120]

> (1) Hidden Leaks - Due to Kentucky-American's adoption of monthly billing, less money will be recovered from hidden leaks because such leaks will be discovered on a more timely basis. To reflect this reduction in revenue, the AG proposed to reduce forecasted operations by $10,108.[121]
>
> (2) Diesel Fuel Expense - Since Kentucky-American's estimated diesel fuel cost far exceeds the average usage for the past 5 years, the AG proposed to reduce forecasted fuel and power expense by $4,773.[122]
>
> (3) Waste Disposal - The AG proposed to reduce this forecasted expense by $14,088 to reflect a new revised estimate provided by Kentucky-American.[123]
>
> (4) Miscellaneous Expense - The AG proposed to reduce this forecasted expense by $9,140 to reflect the actual audit fee incurred in 1995. The AG claimed Kentucky-American did not support the projected increase in this fee.[124]

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120 Brief of Kentucky-American, pages 7 through 12.

121 Direct Testimony of Thomas C. DeWard, page 31.

122 Id.

123 Id., page 30.

124 Id.

(5) Credit Line Fees - The AG proposed to reduce forecasted credit line fees by $31,215 to reflect Kentucky-American's current estimate.[125]

(6) Insurance Other Than Group - The AG proposed to reduce forecasted insurance other than group expense by $35,861 to reflect a new revised estimate provided by Kentucky-American.

Upon review of the evidence of record, the Commission finds that the uncontested adjustments are reasonable. These adjustments result in a total reduction to Kentucky-American's forecasted operating expenses of $105,185 and an increase to net operating income of $62,551.

Property Tax. Kentucky-American proposed a forecasted level of property tax expense of $1,030,264, based on the ratio of actual 1995 property tax payments to the tax base as of December 31, 1994. The resulting rate was applied to the December 31, 1995 and December 31, 1996 projected tax bases to arrive at the forecasted property taxes.[126]

Several of the Commission's rate base adjustments affect the calculation of property taxes, which the Commission has determined to be $1,020,685. Therefore, operating expenses have been decreased by $9,579 and net operating income increased by $5,713.

Tax Depreciation. As with accumulated depreciation, tax depreciation is directly related to utility plant. A reduction to utility plant will result in a corresponding reduction to both state and federal tax depreciation. As utility plant has been reduced,

125 Id., page 28.

126 Direct Testimony of Douglas G. Fuller, page 8.

corresponding adjustments to tax depreciation results in a reduction to net operating income of $17,420.

Interest Synchronization. Kentucky-American proposed a forecasted interest expense for tax purposes of $5,346,558 based on forecasted rate base and weighted cost of debt. The Commission has recalculated this expense to be $5,188,675[127] based on the rate base and weighted cost of debt found reasonable herein. This results in a decrease to net operating income of $63,726.

The Commission, after consideration of the forecasted revenues and expenses and applicable income tax effects, has determined that Kentucky-American's adjusted net operating income to be as follows:

Operating Revenue	$ 33,028,112
Operating Expenses	23,109,236
Net Operating Income	$ 9,918,876

RATE OF RETURN

Capital Structure

Kentucky-American proposed a capital structure consisting of 53.755 percent long-term debt, .557 percent short-term debt, 5.990 percent preferred stock, and 39.699 percent common equity based on its projected average capital structure for the 13 months ending

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Rate Base	$116,077,739
Weighted Cost of Debt	x 4.47%
Interest	$ 5,188,675

August 31, 1997. The long-term debt component includes an issuance planned for February 1997.

The AG advocated a higher level of short-term debt in the capital structure based on Kentucky-American's historical average level of short-term borrowing. The AG proposed a hypothetical capital structure derived by substituting its recommended average short-term debt amount and proportionately reducing the other components of the structure. Kentucky-American, on the other hand, based its proposal on its investment budget projected for the forecasted test year.

Kentucky-American's use of a future test year justifies a capital structure based on its projected investment budget. Thus, Kentucky-American's proposed capital structure should be approved, but adjusted for the construction slippage factor adopted herein. With that adjustment the capital structure is 53.841 percent long-term debt, .329 percent short-term debt, 6.042 percent preferred stock, and 39.788 percent common equity.

Cost of Debt and Preferred Stock

Kentucky-American initially proposed a short-term debt cost of 6.45 percent. Based on its short-term debt cost of 5.82 percent as of June 17, 1996, Kentucky-American revised its projected short-term debt cost to be in the range of 6-6.25 percent. The AG proposed a short-term debt cost of 5.55 percent, the cost forecasted in Kentucky-American's Six-Year Business Plan dated July 1995. The Commission finds that Kentucky-American's short-term debt cost of 5.82 percent as of June 17, 1996 is the most recent known cost and is reasonable for calculating Kentucky-American's capital cost.

Kentucky-American originally proposed a long-term debt cost of 8.2 percent, which included issuing additional debt at 7 percent in February 1997. The AG proposed a long-term debt cost of 8.18 percent, including the additional debt at 7.5 percent. Kentucky-American subsequently updated its projected cost for the February 1997 debt to be 7.75 percent. The Commission finds that the projection of 7.75 percent for the February 1997 debt is reasonable given the increase in interest rates since the time the application was filed. Thus, Kentucky-American's cost of long-term debt, including the recalculation for the February 1997 issuance, should be 8.26 percent.

Kentucky-American proposed an embedded cost of preferred stock of 7.77 percent. The AG proposed a slightly lower cost, 7.78 percent, based on his recalculation of the capital structure. Since the Commission has accepted Kentucky-American's proposed capital structure as adjusted for construction slippage, the cost of preferred stock should be 7.77 percent.

<u>Return on Common Equity</u>

Kentucky-American proposed a return on equity ("ROE") of 12 percent, electing to request the low end of its proposed range of 12-12.4 percent. At the hearing, Kentucky-American updated its range to 12.1-12.3 percent based on more recent market data. The AG recommended an ROE in the range of 9.25-10.25 percent. Kentucky-American's proposed ROE is based on several different methods to establish its proposed range, including the discounted cash flow ("DCF") model, the comparable earnings approach, the risk premium approach, and the capital asset pricing model.

The AG criticized Kentucky-American's DCF calculation, citing overstated dividend yields and growth rates, inappropriate flotation cost adjustments, and improper market-to-book adjustments. The AG also argued that Kentucky-American's other methods produced unreasonable and inflated results, stating in particular that utilities able to file rate increases based on future test years generally have lower investment risk. The AG recommended an ROE in the range of 9.25-10.25 percent, based on a DCF analysis, capital asset pricing model, and bond risk premium method. Kentucky-American maintained that the AG had refused to recognize the company's level of risk and higher interest rates, thereby understating the cost of equity.

Based on all the evidence, including current economic conditions, the Commission finds that an ROE in the range of 10.5-11.5 percent is fair, just, and reasonable. This will allow Kentucky-American to attract capital at a reasonable cost and maintain its financial integrity, ensuring continued service. It will provide for necessary expansion to meet future requirements and result in the lowest possible cost to ratepayers. An ROE of 11 percent will best meet the above objectives.

Rate of Return Summary

Applying the rates of 8.26 percent for long-term debt, 7.77 percent for preferred stock, 5.82 percent for short-term debt, and 11.0 percent for common equity to the adjusted capital structure produces an overall cost of capital of 9.32 percent, which the Commission finds to be fair, just, and reasonable.

AUTHORIZED INCREASE

Revenue Requirement Determination

The net operating income found fair, just, and reasonable is $10,818,445.[128] To achieve this level of income Kentucky-American is entitled to increase its rates and

128 $116,077,739 x 9.32% = $10,818,445.

charges to produce additional annual operating revenues of $1,514,964, determined as follows:

Net Operating Income Found Reasonable	$ 10,818,445
Less: Adjusted Net Operating Income	- 9,918,876
Operating Income Deficiency	$ 899,569
Multiplied by: Gross-up Factor	x 1.6840999
Required Revenue Increase, Inclusive of Income Taxes, PSC Fee, and Uncollectible	$ 1,514,964

Cost-of-Service Study and Rate Design

Kentucky-American filed a cost-of-service study in this case and based its proposed rates on the result of the study. The issues raised regarding the proposed rates are addressed below.

Fire Protection. Kentucky-American has traditionally allocated 1 percent of base costs to fire service. This amount is a standard industry practice for allocating fire protection costs where no records of actual usage exists. In this case, Kentucky-American proposed to allocate only .1 percent of base costs to fire service based on fire fighting water usage reports supplied by LFUCG from its Division of Fire and Emergency Services. The adjustment was also based on usage by Kentucky-American for fire hydrant testing, fire flow tests and other uses of water.

The AG questioned the validity of the usage reports supplied by LFUCG and whether the proposed methodology would cover the base costs of supplying the stand-by service. He maintained that based on Kentucky-American's estimates in 1995, LFUCG used 1,056,723 gallons of water for fighting 1,555 fires, for an average of 680 gallons per fire.[129] LFUCG demonstrated that of the 1,586 runs classified as fire incidents, almost 50 percent (776) were extinguished without using water and 85 percent of the rest (694) were extinguished with water carried on the apparatus. Thus, only 116 of 1,586 fire runs resulted in the use of water from a hydrant, for an average of 9,110 gallons.[130]

Kentucky-American stated that, due to technological changes in the past 10-15 years, less water is required to fight a fire. The installation of smoke detectors and smoke, flame and heat detectors contribute to the earlier detection of a fire and tend to reduce the amount of water required to put out fires.[131] The AG agreed that accurate actual information representative of ongoing, normal conditions is superior to using an estimate.[132] The Commission finds that the water usage reports supplied by LFUCG are credible and reasonable for use in designing fire service rates. The assigned costs to fire service should cover the actual cost of providing the service. Therefore, the Commission will accept the .1 percent allocator for assigning base costs to fire service.

Rate Design. Mr. Talwalkar proposed that Kentucky-American be required to implement an inclining block or seasonal rate structure.[133] He maintains that under the company's current cost-of-service study those members of a customer class who do not

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129 Direct Testimony of Scott J. Rubin, page 5.

130 Rebuttal Testimony of T. Harold McKune.

131 Rebuttal Testimony of Thomas G. McKitrick, page 4.

132 Response of AG to LFUCG Data Request, page 2.

133 Brief of Chetan Talwalkar, page 1.

exhibit high peaking behavior, such as apartment dwellers in the residential class, will pay a portion of the cost of providing the reserve capacity needed to serve members who create large peaks in usage, such as those who live on large lots and irrigate extensively.[134] He further opines that this intra-class subsidy does not promote efficient use of water and forces those with efficient usage habits to subsidize the inefficient use of others.

Mr. Talwalkar makes several assumptions in his discussion of rate design, such as apartment dwellers subsidize other customers and that customers who irrigate do so at peak times. Kentucky-American is in the process of performing a demand study which is to be used in the cost-of-service study filed in its next case. Prior to completing that study, the absence of customer demand statistics makes it impossible to accurately and effectively change Kentucky-American's rate design to implement a conservation rate. Mr. Talwalkar acknowledges that regardless of the method used to devise a seasonal or inverted rate in this case, it is likely to be extensively modified as more data becomes available.[135] The AG states that it would be unfair to send customers a seasonal price signal or peak period price signal without giving them the opportunity to respond to that signal and quarterly billing, which will continue for some months, does not provide customers with the opportunity to adjust their consumption patterns.[136]

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[134] Id., page 2.

[135] Chetan Talwalkar's Response to PSC Data Request, page 2.

[136] Direct Testimony of Scott J. Rubin, page 13.

If Mr. Talwalkar's goal is to "send a signal" to customers to decrease their consumption and possibly eliminate the issue of whether an additional source of supply is needed, rate design changes should be considered after monthly billing has been implemented. Water should be priced at its actual cost until such time that definitive studies are performed to justify, if possible, pricing changes designed to influence customer consumption patterns. The Commission finds no basis to implement an inclining block or seasonal rate structure at this time.

Customer Charge. Kentucky-American's rate design includes a customer charge based on meter size. Kentucky-American's cost-of-service study indicated that customer charges should be increased approximately 19 percent, with the typical residential charge for a 5/8 inch meter increasing from $5.85 to $6.98.

Kentucky-American utilized a fully allocated cost of service to derive its customer charges. This methodology allocates to the customer charge those costs directly associated with meter reading and billing and also allocates a portion of indirect costs of utility plant, operation and maintenance and depreciation expense.[137]

The AG proposed to base the customer charge on the direct cost of meter reading and billing, and providing the meter and service line to the customer. Using this methodology, he developed a customer charge of $4.55 for a 5/8 inch meter, but recommended no decrease from the current level of $5.85.[138] After reviewing additional

137 Rebuttal Testimony of Thomas G. McKitrick, pages 4 and 5.

138 Prefiled Testimony of Scott J. Rubin, page 7.

information provided by Kentucky-American, the AG agreed to include additional expenses in his calculation, resulting in an adjusted customer charge of $5.77.[139]

There are generally two theories on the types of costs that should be recovered through the customer charge: one provides recovery of both direct and indirect costs, the other provides recovery of only direct costs. The Commission has traditionally accepted fully allocated cost-of-service studies in water cases and has accepted this methodology in prior Kentucky-American cases. Additionally, the Commission allocates a portion of indirect costs, such as administrative and general and depreciation costs to the customer charge, in cost-of-service studies it performs on small and medium size water utilities. The Commission finds that Kentucky-American's methodology of allocating both direct and indirect expenses to its customer charge should be accepted since a portion of the indirect charges do not vary with the quantity of water consumed. Utilizing this methodology and the expenses approved herein produces a residential customer charge of $6.62 for a 5/8 inch meter, an increase of 13 percent.

Implementation of the Cost-of-Service Study. Kentucky-American proposed to fully reflect the results of its cost-of-service study in its proposed rates. This results in a 12 percent increase in the usage rates for the residential customers, a 1 percent increase for commercial customers, a .04 percent decrease for industrial customers and a 14 percent increase for other public authority and sales for resale customers.

Kentucky-American's proposed increase in usage rates, when combined with its proposed increase in customer charges, would range from an increase of approximately

[139] Surrebuttal Testimony of Scott J. Rubin, at SJR-16.

20 percent to some customers with some larger users receiving a slight decrease. The AG argues that due to the level of judgment involved in preparing a cost-of-service study, the rates indicated by the study should be adjusted plus or minus 10 percent to distribute the increase more evenly among the customer classes.[140]

Kentucky-American maintained that judgmental differences would not yield a 10 percent differential in appropriate revenue targets. To support this position it performed a sensitivity analysis by equalizing all the demand factors for maximum day and maximum hour into the system averages. The analysis produced a greater than 10 percent change in revenue requirements only for the industrial class.[141]

The purpose of a cost-of-service study is to identify interclass subsidization. The Commission recognizes that the results of a cost-of-service study must often be tempered by principles of gradualism and rate continuity. The Commission is always concerned with the impact a rate increase will have on customers and must weigh the impact of that increase against the fairness of having one or more classes subsidize another class. Considering all these factors, the Commission finds it reasonable to use the allocation factors set out in the allocation of revenue requirement table and the table showing the assignment of functional costs to customer classes[142] to allocate adjusted expenses. The adjusted usage rates result in an increase of 2.32 percent for the residential customer, a .32 percent decrease for the commercial customer, a 4.58

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140 Direct Testimony of Scott J. Rubin, page 9.

141 Rebuttal Testimony of Thomas G. McKitrick, page 7.

142 Application of Kentucky-American, Exhibit 36, Cost of Service Study.

decrease for the industrial customer, a 8.59 percent increase for other public authority, and a 9.22 increase for the sales for resale customers. Based on an average monthly usage of 5,984 gallons, the average residential bill will increase from $17.62 to $18.66, a 5.9 percent increase.

Contract with City of Versailles. Kentucky-American currently has a contract with the city of Versailles ("Versailles") to provide water on demand. Versailles is required to pay a nominal minimum rate for its meter and the currently approved rate for any water taken. Kentucky-American is obligated to furnish water to Versailles so long as its requirements do not create flows that will adversely affect the existing customers of Kentucky-American.[143]

The AG maintains that Kentucky-American should take aggressive actions to renegotiate the agreement with Versailles to include a minimum bill or take-or-pay obligation, or a higher consumption rate.[144] Kentucky-American responded by filing an amended agreement[145] demonstrating that Versailles had contributed approximately $325,500 to a main extension project that benefitted both parties. Kentucky-American states that the project improved service to its existing customers and that Versailles constructed improvements to its own system which reduced its dependence on Kentucky-American. After reviewing both the original contract and the 1985 amended

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[143] Kentucky-American's Response to AG Data Request No. 1, at 30. Executed Contract with City of Versailles.

[144] Direct Testimony of Scott J. Rubin, page 14.

[145] Rebuttal Testimony of Thomas G. McKitrick, page 10. Executed Contract with City of Versailles.

agreement, the Commission is not persuaded that the agreement with Versailles is unjust or unreasonable or in need of modification at this time.

Effective Date of Rate Increase

By Order dated February 26, 1996, the Commission suspended Kentucky-American's proposed rates for six months, through August 28, 1996, to investigate the reasonableness of the rate application. The investigation was not concluded by the end of the suspension period and on August 29, 1996 Kentucky-American filed its notice pursuant to KRS 278.190(2) to implement its proposed rates. In response to that notice, the Commission entered an Order on August 30, 1996 requiring Kentucky-American to maintain its records to allow a determination of any amounts to be refunded and to whom due in the event a refund is ordered. Since Kentucky-American's proposed rates exceed the rates found reasonable herein, the difference should be refunded to each customer, if any, billed at the proposed rates. Thus, the new rates approved herein are to be effective for service rendered on and after September 11, 1996, unless Kentucky-American has actually implemented its proposed rates by using them for billing purposes in which event the new rates are to be effective August 29, 1996.

SUMMARY

All consideration of all matters of record and being otherwise sufficiently advised, the Commission finds that:

1. The rates in Appendix A are the fair, just, and reasonable rates to be charged by Kentucky-American for service rendered on and after September 11, 1996 if Kentucky-American did not actually implement its proposed rates by using them for

billing purposes or on and after August 29, 1996 if the proposed rates were so implemented.

2. The rates proposed by Kentucky-American would produce revenue in excess of that found reasonable herein and should be denied as unreasonable.

3. The rate of return granted herein is fair, just, and reasonable and will provide for the financial obligations of Kentucky-American with a reasonable amount remaining for equity growth.

4. Kentucky-American should file by September 20, 1996 a certification stating whether its proposed rates were implemented and, if so, the dates on which such rates were billed. In the event the proposed rates were so implemented, Kentucky-American should file by October 1,1996 its report of excess revenues collected under the rates placed in effect August 29, 1996 and its proposed plan for refunding those excess revenues.

IT IS THEREFORE ORDERED that:

1. The rates in Appendix A are approved for service rendered by Kentucky-American on and after September 11, 1996 if the proposed rates were not implemented by being billed, or on and after August 29, 1996 if the proposed rates were so implemented.

2. The rates proposed by Kentucky-American are denied.

3. Kentucky-American shall file by September 20, 1996 its certification of the rates implemented and billed between August 29, 1996 and September 11, 1996 and,

if applicable, shall file by October 1,1996 its report of excess revenues and its proposed refund plan.

4. Within 30 days from the date of this Order, Kentucky-American shall file with the Commission revised tariff sheets setting out the rates approved herein.

5. The issue of changing Kentucky-American's rate design shall be considered in its next rate case after all parties have had an opportunity to review Kentucky-American's demand study and cost-of-service study.

Done at Frankfort, Kentucky, this 11th day of September, 1996.

PUBLIC SERVICE COMMISSION

Linda K Breathitt
Chairman

Vice Chairman

Robert M. Davis
Commissioner

ATTEST:

Don Mills
Executive Director

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 95-554 DATED September 11, 1996.

The following rates and charges are prescribed for the customers in the area served by Kentucky-American Water Company. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under authority of this Commission prior to the effective date of this Order.

SERVICE CLASSIFICATION NO. 1

METER RATES

The following shall be the rates for consumption, in addition to the service charges provided herein:

Customer Category	Rate Per 1,000 Gallons All Consumption	Rate Per 100 Cubic Feet All Consumption
Residential	$2.00649	$1.50487
Commercial	1.89253	1.41940
Industrial	1.51268	1.13451
Municipal & Other Public Authority	1.81304	1.35978
Sales for Resale	1.73322	1.29992

SERVICE CHARGES

All metered general water service customers shall pay a service charge based on the size of meter installed. The service charge will not entitle the customer to any water.

	Service Charge	
Size of Meter	Per Month	Per Quarter
5/8 Inch	$ 6.62	$ 19.86
3/4 Inch	9.93	29.79
1 Inch	16.55	49.65
1-1/2 Inch	33.10	99.30
2 Inch	52.96	158.88
3 Inch	99.30	297.90
4 Inch	165.50	496.50
6 Inch	331.00	993.00
8 Inch	529.60	1,588.80

SERVICE CLASSIFICATION NO. 3

AVAILABILITY OF SERVICE

Available for municipal or private fire connections used exclusively for fire protection purposes.

FIRE SERVICE RATES

Size of Service	Rate Per Month	Rate Per Annum
2" Diameter	$ 3.86	$ 46.32
4" Diameter	15.44	185.28
6" Diameter	34.70	416.40
8" Diameter	61.68	740.16
10" Diameter	96.38	1,156.56
12" Diameter	138.81	1,665.72
14" Diameter	188.95	2,267.40
16" Diameter	246.73	2,960.76

SERVICE CLASSIFICATION NO. 4

RATES FOR PUBLIC FIRE SERVICE

	Rate Per Month	Rate Per Annum
For each public fire hydrant contracted for or ordered by urban county, county, state, or federal government agencies or institutions	\$23.12	\$277.44

RATES FOR PRIVATE FIRE SERVICE

	Rate Per Month	Rate Per Annum
For each private fire hydrant contracted for by industries or private institutions	\$34.70	\$416.40

HIDDEN LEAK ADJUSTMENT: A charge of twenty-five (25) percent of the applicable tariffed rate will be applied to all water usage determined to be the result of a hidden underground leak.